

ABSTRACT

An optical control type phased array antenna includes a laser generating means for generating light of single wavelength, an optical path branching means for branching the light emitted from the laser generating means into first and second transmission lights, a high frequency signal generating means for generating a high frequency signal, an optical frequency modulating means for shifting the frequency of the first transmission light branched by the optical path branching means by the frequency of a high frequency signal thus generated, a spatial light phase modulating means performing spatial phase modulation of the first transmission light shifted by the frequency of a high frequency signal depending on the antenna beam pattern, and an optical path branching/multiplexing means for multiplexing the first transmission light subjected to phase modulation and the second transmission light branched by the optical path branching means. Optical path lengths of two paths between the optical path branching means and the optical path branching/multiplexing means are equalized.